

CLAIMS

1. A bottom opening type container composed of side plates (14) and a pair of bottom plates (11), having hinges (12) of the bottom plates (11) attached to near bottom portions of the side plates (14), locking pins (13) provided near distal ends of the bottom plates (11), and a pair of open/close arms (43) which are pivotally supported at around center portions thereof by fixed pins (46c) fixed to the side plates (14), and which interlock with each other via gear portions (433), and which are capable of locking the locking pins (13) by lower end hook portions (431) thereof, the container comprising an open/close control mechanism (4) including:

a hoisting plate (31) which is supported pivotally about a fixed pin (46a) fixed to an upper portion of the side plate (14) and has a hoisting hole (311) at an outer end thereof for connecting a wire rope (W) to hoist the bottom opening type container;

a vertical link (32) one end of which is connected to the hoisting plate (31) and the other end of which is connected to an oscillating link (33) swingably supported to a fixed pin (46b) fixed to a lower portion of the side plate (14);

a lateral link (35) one end of which is connected to the oscillating link (33);

a link (45) which is inserted into a hollowed out plate (44) fixed to a lower portion of the side plate (14) and one end of which is connected to the lateral link (35), and which is biased to one direction by a return spring (49c); and

an operation cam (41) which has a rotating center thereof at a rear surface side of the open/close arm (43) outside of the locking pin (13), and which restrains the rear surface of the open/close arms (43) in a rise posture to maintain the open/close arms (43) in a close state and releases the open/close arms (43) in a down posture when the bottom plates (11) are closed,

wherein in a state that a distal end (452) of the link (45) or an extended portion (453) attached to the distal end (452) is placed on a stepped portion (442) of the hollowed out plate (44) or an upper end (413) of the operation cam (41) in a rise posture, one upper end of the open/close arms (43) is restrained so that the open/close arms (43) are maintained in the close state,

wherein in a state that the distal end (452) of the link (45) or the extended portion (453) attached to the distal end (452) drops out of the stepped portion (442) of the hollowed out plate (44) or the upper end (413) of the operation cam (41) in the rise posture, one upper end of the open/close arms (43) is released,

wherein the link (45) moves to a horizontal direction interlocking with a movement of the hoisting plate (31), and the placed state is changed into the dropped state, so that the open/close arms (43) are pressed to an open direction by a hoisting force.

2. The bottom opening type container according to claim 1, wherein the open/close control mechanism (4) is provided to both sides viewed from the hinges (12) of the bottom plates (11), and the respective operation cams (41) are connected to each other via a connecting shaft (411).